

## Plate, Mathew

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**From:** Mathew Plate [[Plate.Mathew@epamail.epa.gov](mailto:Plate.Mathew@epamail.epa.gov)]  
**Sent:** Monday, August 19, 2013 9:14 AM  
**To:** Plate, Mathew  
**Subject:** Fw: Pending Questions regarding Great Basin Audits

----- Forwarded by Mathew Plate/R9/USEPA/US on 08/19/2013 09:13 AM -----

From: Mathew Plate/R9/USEPA/US  
To: MichaelA Flagg/R9/USEPA/US@EPA,  
Date: 01/18/2012 04:23 PM  
Subject: Re: Fw: Pending Questions regarding Great Basin Audits

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I really don't know much about the TEOM monitors.

For the wind speed monitor there should not be a problem, but the data may not be suitable for modeling. This was the project that Francisco was working on over the summer - how to identify which meteorological data is suitable for which uses.

mat

-----MichaelA Flagg/R9/USEPA/US wrote: -----

To: Mathew Plate/R9/USEPA/US@EPA  
From: MichaelA Flagg/R9/USEPA/US  
Date: 01/05/2012 02:57PM  
Subject: Fw: Pending Questions regarding Great Basin Audits

Do you have any thoughts about this?

Any input would be great. Thanks !!

Michael Flagg  
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----- Forwarded by MichaelA Flagg/R9/USEPA/US on 01/05/2012 02:56 PM -----

From: "Wright, Merrin@ARB" <[mwright@arb.ca.gov](mailto:mwright@arb.ca.gov)>  
To: MichaelA Flagg/R9/USEPA/US@EPA  
Date: 01/05/2012 10:25 AM  
Subject: Pending Questions regarding Great Basin Audits

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Mike,

We are still looking for some guidance on our audit in Great Basin. Can you reply to the email or give me a call Thursday? Thanks. Merrin

During a recent audit of the monitoring sites in the Great Basin District, QAS auditors encountered several situations with the particulate and meteorological equipment used by the District that we would like to get input on from U.S. EPA.

1. QAS found the flow rates of the TEOM units (1400a or 1400a/FDMS) at the Mono Shore, Mammoth Lakes, and White Mountain monitoring sites were all within criteria, but one or more leak check values (main & aux/bypass) failed the leak test criteria (0.15 and 0.65LPM respectively). QAS had the District disconnect the vacuum pump from the sampler and read the non-linear offset value (NOV)/background flow value indicated on the instrument display in the absence of flow. All but one sampler (Mammoth Lakes) met audit criteria when the NOV value was added to the acceptance criteria (acceptance criteria + observed NOV= revised audit criteria). Each of the samplers audited had a different NOV value, so it does not appear to be a consistent value for all samplers. An SOP prepared by Sonoma Technology, Inc (STI-905505.03-3657-SOP 9/1/09) for the TEOM 1405-DF, but applicable for the 1400a/FDMS units as well, includes Table 11-1 (Data Validation Criteria) that has “must meet” criteria of 0.3 and 1.2 LPM for the leak test criteria. All samplers met the “must meet” criteria. No AQDAs were issued at the time of the audit. Should the NOV value be considered in determining leak test criteria? Should an AQDA be issued for any of the samplers?

2. The starting threshold for the RM Young 05103 Wind Monitor at two of the sites exceeded the PAMs criteria (0.5m/s), but were within the manufacturer specification of 1.1m/s (see attached). The District was aware of the increased starting torque requirements of the sensor, but uses the RM Young 5103 units because of the reliability of the sensor’s bearing design in the high wind velocities and dust/particulate levels found in the area. No AQDA was issued for the sensors at the time of the audit because the starting torque was within the manufacturer specifications.

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The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy cost, see our web site at <http://www.arb.ca.gov>